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10/531,007	10/13/2005	Fedja Bobanovic	920602-99281	2701

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EXAMINER

NGUYEN, THONG Q

ART UNIT	PAPER NUMBER
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2872

NOTIFICATION DATE	DELIVERY MODE
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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Patent-ch@btlaw.com

Office Action Summary	Application No. 10/531,007	Applicant(s) BOBANOVIC ET AL.	
	Examiner Thong Nguyen	Art Unit 2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2005 and 23 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 32-62 is/are pending in the application.
- 4a) Of the above claim(s) 35-47 and 50-62 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 32-34, 48 and 49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 April 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Pre-amendment

1. The present Office action is made in response to the pre-amendment filed on 4/12/2005 and the Election of 2/23/2009.

2. It is noted that in the Pre-amendment of 4/12/2005, applicant has canceled claims 1-31 and added a new set of claims, i.e., claims 32-62, into the application. There is not any change to the abstract, the drawings and the specification.

Election/Restrictions

3. Applicant's election of Group I, claims 33-34 and 49, in the reply filed on 2/23/2009 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

4. As a result of applicant's election, the linking claims 32 and 48 and the claims 33-34 and 49 of the elected invention are examined in this Office action. Claims 35-47 and 50-62 have been withdrawn from further consideration as being directed to non-elected inventions.

Priority

5. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

6. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other

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information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Drawings

7. The drawings contained fifteen sheets of figures 1-5, 6A-C, 7, 8A-B, 9A-B and 10A-B were received on 4/12/2005. These drawings are objected by the examiner for the following reason(s).

8. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "12" has been used to designate both a stage as shown in figure 1 and a microscope as shown in figure 2. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

9. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following features

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must be shown or the features canceled from the claims. No new matter should be entered.

First, the feature related to shutter means operated by signals from a control means for interrupting light from a light source to a specimen as recited in claim 33, and Second, the feature related to shutter means for interrupting light from a specimen to an image capture device as recited in each of claims 34 and 49.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

10. The abstract of the disclosure listed in the front page of the WO 2004/036898 filed by applicant on 4/12/2005 is used as an abstract of the present U.S. application serial number 10/531,007. The abstract is objected to because of the following reasons: First, it contains more than 150 words, and Second, the terms "said" and "means" are used in the abstract. Correction is required. See MPEP § 608.01(b).

11. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

12. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is

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requested in correcting any errors of which applicant may become aware in the specification.

13. The specification is objected to because it does not have headlines for the purpose of providing a clear framework of the specification. Appropriate correction is required.

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.

(b) CROSS-REFERENCE TO RELATED APPLICATIONS.

(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR
DEVELOPMENT.

(d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.

(e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A
COMPACT DISC.

(f) BACKGROUND OF THE INVENTION.

(1) Field of the Invention.

(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

(g) BRIEF SUMMARY OF THE INVENTION.

(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

(i) DETAILED DESCRIPTION OF THE INVENTION.

(j) CLAIM OR CLAIMS (commencing on a separate sheet).

(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A

“Sequence Listing” is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required “Sequence Listing” is not submitted as an electronic document on compact disc).

14. The Summary of the invention is objected to because it contains numerous details of the invention and also contains descriptions of the prior art. Applicant should provide a brief description of the invention in the Summary and moves other detailed information of the invention to the section "Detailed Description of the Invention". Appropriate correction is required.

Claim Objections

15. Claims 32, 34, and 49 are objected to because of the following informalities. Appropriate correction is required.

a) In claim 32: the following corrections are suggested to the claim.

First, on line 1, “Apparatus” should be changed to --An apparatus--;

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Second, on line 3, the “-“ appeared after “comprising:” should be deleted; and

Third, on line 13, “the said” should be changed to –said--; and

b) In claim 33: the following corrections are suggested to the claim.

First, on line 1, “Apparatus” should be changed to –The apparatus--; and

Second, on line 2, “excitation source” should be changed to --excitation light source--.

c) In claim 34: the following corrections are suggested to the claim.

First, on line 1, “Apparatus” should be changed to –The apparatus--;

Second, on line 4, “sensor” should be deleted because the feature “the image capture device sensor” lacks a proper antecedent basis;

Third, on line 4, “periods” should be changed to --period--, see claim 32, line 19;

Fourth, on line 6, “could arise” should be changed to --arise--; and

Fifth, on line 7, --image-- should be added before “capture”.

d) In claim 49: the following corrections are suggested to the claim.

First, on line 1, “A method” should be changed to –The method--;

Second, on line 3, “the said’ should be changed to –said--;

Third, on line 3, “periods” should be changed to --period--, see claim 48, on line 10; and

Fourth, --image-- should be added before “capture”, see line 2 of the claim.

Claim Rejections - 35 USC § 112

16. Claims 34, 48 and 49 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a) In claim 34: on line 6, the feature thereof "light due to other effects" is indefinite. What "other effects" does applicant imply here? Applicant should note that claim must be analyzed to determine its metes and bounds so that it is clear from the claim language what subject matter the claim encompasses. In the present claim, it is unclear about the mete and/or bound of the feature 'light due to other effects' claimed in the claim.

b) Claim 48 recites a method of imaging light from a specimen using an apparatus, but, since the claim does not set forth any steps involved in the method, it is unclear what method applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

c) Claim 49 is rejected under 35 USC 112, second paragraph for the similar reason as set forth in element a) above.

Claim Rejections - 35 USC § 102

17. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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18. Claims 32 and 48, as best as understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Endo et al (Publication No. 2002/0097490).

Endo et al disclose a confocal microscope. The confocal microscope as described in paragraphs [0220]+ and shown in figs. 19+ comprises the following features: a) a means for mounting a specimen (40) which is able to move along an optical axis; b) a light source system (30, 32) for providing light to illuminate the specimen; c) a confocal scanning system (102, 42, 96) for directing light from the light source system to the specimen in one direction and for directing light reflected from the specimen to a detecting system in other direction. The scanning disk (102) is rotated to guide light emitted from the disk to scan repeatedly an area of interest of the specimen; d) a detecting system (44, 46) having a charged coupled device (46) which comprises a plurality of spatially distinct sensitive regions for receiving light reflected from the specimen after passed through the apertures of the scanning disk (102); and d) a control system (86, 60a-b, 78, 104, 106) having a host computer (86) and a controller (78) for controlling the operation of the charged coupled device (46), the scanning disk (102) on the basis of input signals provided by the photodetectors (60a, 60b), synchronizing signal generator (104), computer (86), ...so that the time the light from the specimen incidents on the charge coupled device is synchronized with the scanning time of the scanning disk. See paragraphs [0226], [0248], for example. It is also noted that the signals from the charged coupled device is displayed on a monitor (58), see paragraphs [0221]-[0222].

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Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. Claims 33-34 and 49, as best as understood, are rejected under 35 U.S.C.

103(a) as being unpatentable over Endo et al in view of Morita et al (Publication No. 2002/0067477).

The confocal microscope as provided by Endo et al does not explicitly disclose a shutter disposed on the downstream of the light source system (30, 32) for controlling the light from illumination the specimen. Regarding to the feature regarding to a shutter disposed upstream of the charged coupled device, such feature is inherently known because any charged coupled device comprises a shutter disposed therein. It is also noted that Endo et al do not disclose the operation of the shutter of the charged coupled device in relation to the operation of the shutter disposed downstream of the light source system. However, the use of two shutters wherein one is disposed on the downstream of a light source and the other is disposed upstream of a charged coupled device wherein the two shutters are connected to a control system so that their operations are related to each other is known to one skilled in the art as can be seen in the optical device provided by Morita et al. In particular, Morita et al disclose an optical device having an illumination system for providing light to illuminate an object and a

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detecting system for receiving light reflected from the object. The illumination system comprises a shutter (17) in the form of an acousto-optic element , see paragraph [0052] and the detecting system comprises a shutter wherein both shutters are connected by the control system so that their operations are synchronously related to each other. See paragraph [0062]-[0063]. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the confocal microscope as provided by Endo et al by utilizing shutters in the illumination system and the detecting system as suggested by Monita et al for the purpose of controlling the operations of the shutters and for reducing errors to the images received by the detecting system.

Conclusion

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Nguyen whose telephone number is (571) 272-2316. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone B. Allen can be reached on (571) 272-2434. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thong Nguyen/

Primary Examiner, Art Unit 2872